

A RUDIMENTARY UNDERSTANDING TO RESEARCH IN THE SOCIAL SCIENCES

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Abstract

This essay is primarily devoted to be a primer for aspiring researchers in the social sciences. Maintaining brevity yet aspiring to keep a comprehensive outlook into some basic terminology has been the purpose. We glean seminal papers into understanding how the conduct of inquiry instigates revolutions, builds paradigms and also, understanding how the elements and processes contribute to knowledge creation. Importance of Variables, Methods, Scale Development Practices and Models are touched upon with its nuances and caveats.

Keywords: *Paradigms, Qualitative Research, Quantitative Research, Scale Development, Variables, Models*

Research in the Social Sciences and especially in management has been carried out since many years, However, in ‘Today’s Paradigm’, research in the domain of management can be traced back to the last century with the establishment of many Business Schools in the United States which catered to the creation and dissemination of knowledge related to Management Sciences. However, Business Schools focused seemingly and overtly in the scientific temperament of management (Bennis & O’Toole, 2005), being influenced by the Automotive Industry¹. A Management Degree or the first MBA’s in those days catered more to Taylor’s school of thought, see (Doray & Macey, 1988); Optimization was the ‘paradigm’ then. However, if we probe deep into it we realize that paradigm development takes years or in some cases centuries to develop. Currently in 2019 we talk about the ‘Industry 4.0’ Paradigm.

Paradigm Development

A paradigm is essentially a consensus development by a set of followers and adherents who subscribe to a certain school of thought or understanding, in which they have their own ontological: or an assumption of reality/being and epistemological: assumptions related to understanding the reality which they hold to be “true” (Mackenzie & House, 1978). The phenomenon to be accounted for is called explanandum and the statements and statements describing the phenomena are called explanandum sentences and the explanatory information being provided hence, is called explanans. However not every scholar or a person in pursuit of intellectual excellence, is servile to the dominant paradigm of his time. There may be questions raised as to whether the dominant paradigm can answer all of the questions raised at that latter point of time. When more too often the answer is no, a given paradigm succumbs which leads to the formation of a new paradigm which too would have its own life cycle. For years in the western school of thought, scholars, explorers and others thought that the world was flat. In a theologian backed up feudal society where the church held a supreme place, decreed that it was indeed flat. When a set of rebel-scientists thought otherwise and were not obsequious to the explanation provided by the dominant paradigm of that time: they were admonished by being declared as heretics and excommunicated from the society and the formal church systems.

¹ *Business schools were looked upon as finishing schools*

However, over time, after this spark of dissidence was ignited, there were other followers to these intellectual rebels: and a new paradigm emerged, albeit embryonic, in which their pursuit of truth or the explanandum was to describe the nature of the earth and so on. This new paradigm, which branched out from the old also gave rise to new ways of understanding: very soon it too had its development and followers, and its share of dissidents as well. These revolutions as described happen in almost every field. In his book, *The Structure of Scientific Revolutions*; Thomas Kuhn says that these scientific revolutions are paradigms which incubate, develop and face decline, and between any two consecutive developments there is a revolution and then again a peaceful interlude and again this is a repetitive cycle (Kuhn, 1962). However, we must note that paradigm development takes years to develop, and ossify. The current paradigm (dominant order of that time), in order to suppress the new paradigm can also reinvent itself by adding to it, new knowledge which forms the foundation. Paradigm in itself supports creation of new knowledge, provided it is not in conflict with certain core “shared” values of its adherents and its and the nature of the quintessence of its foundations: Measuring Devices, Empirical Laws and a specific set of super structures (Byrne, 1971).

Therefore, is the ‘philosophy of management’ a science – an established paradigm? Where we get clearly outlined rules or is it an art, where the power of imagination can open new avenues of thinking. Either extreme would be unimaginable. For if “Social Sciences” are indeed a part of puritarian science than Man, as we know today would be nothing more than a mechanical mass-body with a predestined fate. And if it is an art, overtly, then we would come up with figments of imagination often, whimsical leading to inappropriate mythical explanations. Therefore, true researchers understand the importance of both. Every paradigm has its set of ‘Theories’.

Theories & Theory Development

Not every statement is today pronounced by a person can be called a theory. We must pause and reflect whether a theory truly is universal for which the understanding of concept traveling (whether a concept can be accommodated to varying situations) and concept stretching (the extent to which a theory can explain situations under its aegis) become important. If a concept or a theory is too vast then we may question it on its generality. Therefore, a theory must be a specific but not too insular. A theory must be a bit action oriented in my understanding to explain the pragmatic nature of the world or “real” world as we call today. Therefore the construction of ‘Theories’ is of utmost importance, however much, the state is quite appalling in theoretical construction today (Bennis & O’Toole, 2005; Platt, 1964; Sutton & Staw, 2012; Weick, 1989, 1995; Whetten, 1989).

So in short the problems at hand, especially in today’s management context and in the last few decades is that new theories are just not getting developed, rather that they continue to bank on the theories developed by researchers in the 1970’s (Suddaby, Roy; Hardy, Cynthia; Huy, 2011). So much so that when they called the scholarly community for new theory what they received in return was a critique for the same,

²A real world would in my opinion be a paradigm of the understanding which has the maximum followers. The world which is perceived by one will be different with varying levels of degree of variation from the person next to you.

the critiques in their part too failed to develop any new theory but rather suggested and focused on the process of theory construction, the three things that the critique had in common were and that Management or Social Science, has failed to develop its 'own' theories which fail to capture the rich complexity of organizations and is inherently conservative to practice. Suddaby, Roy; Hardy, Cynthia; Huy (2011) then immediately shift the focus to the problems we have at hand in theory generation. They quote scholars who have lamented over the fact that Management Science is not a fully developed independent stream and rather a stream that has borrowed from other disciplines like sociology, engineering etc. but also the above authors quote other scholars critical of management science as an evolved independent discipline who concur within their retinue of followers that organizations today have become grounds where management theorists subject existing theories to the vagaries of new validation technique . This disconnect between management theory and practice needs to be bridged. I shift focus to the elements that construe of the constituents of a theory, starting with variables.

Variables

Quite more than often, we come across the term variable, but we need to pause and reflect on the qualities and aspects of variables before we just conjure them to be objects of measurement variables can be classified majorly into broadly, *Direct Variables*: Taking help of real world examples to ameliorate the distinction between the two taxa under which variables are classified which otherwise tend to overlap if not conceptualized correctly: Measures such as GDP, ROE etc. which are examples of attributes that can be garnered from secondary or primary sources which constitute what we call as direct variables. A nature of such variables is that it can be observed directly and can be readily looked upon through physical experimentation or databases. The more complex, *Latent Variables*: Indirectly measured, which are hidden and need to be culled out, brought out with meaning and accuracy from the object under consideration. *Construct with respect to Latent variables*: A 'theoretical construct' may have a lot of latent variables, hidden, viz. example we have a questionnaire or a survey, so an item may not be directly measuring something but indirectly measuring something latent, the variable then may be a construct or it may be a sub construct. In Latent Variables we further have *Constituted Constructs*: put lucidly consists of the basic blocks – giving rise to the construct; if one of the blocks do not exist the phenomena will not happen. For example, for "water" molecule as we know today will necessarily need two hydrogen atoms and one oxygen atom to "form" a water molecule. *Reflective Construct*: Akin to the analogy of how water gives can be seen as steam (gaseous), ice (solid) and liquid forms which are reflective constructs of water, something that reflects out characteristics of the element. But to measure these variables we need 'methods' and therefore the next section.

Methods – Differences in between the two dominant types (Qualitative and Quantitative Approaches)

Moving on to the next part of the research process is deciding whether to go for a Qualitative or a Quantitative Study and the following understanding is widely accepted by most scholars (Golafshani, 2003). As enunciated above, the two types of methods include qualitative and quantitative research, one explains the link which is generally established by the latter. In quantitative research the researcher first acclimatizes him

or her to the problem to be studied or the concept which he is working on and then generate hypotheses on the basis of facts, information in the form of numbers, process of analyzing data and concluding results.

The quantitative researcher appreciates the phenomena which he is studying by delimiting it to a set of standards he is accustomed to or familiar with; also, measuring responses of the people, assigns a numerical value to each of their responses. This place a lot of emphasis on the measuring tool or instrument, therefore validity of this instrument is of prime importance to us. The test is supposed to validate if what we are measuring is what was truly meant to be measured? Therefore, reliability and

Reliability: *"The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable."* (Golafshani, 2003). This is dependent on repeated measurements with a similar set of instruments under a given time period which shows stable results. Critics, who state that because some people answer to certain types of questionnaire which are same but measure at different points in time may have different results, primarily owing to the fact that the responder might have sensitized oneself the questions, may want to project some desirable image after getting to know the results of the first questionnaire, profess socially desirable responses questioning the integrity of the tests itself.

Validity: *"Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. In other words, does the research instrument allow you to hit "the bull's eye" of your research object. Researchers generally determine validity by asking a series of questions, and will often look for the answers in the research of others."* (Golafshani, 2003) The validity in Quantitative Techniques is defined as "construct validity", the construct is the initial concept, notion, question or hypothesis that determines which data is to be gathered and how it is to be gathered. But when we shift gear and come to qualitative research will these definitions hold good? While a quantitative researcher will be concerned with the degree to which the results will repeat and more over have they actually observed or measured what they intended to measure, the qualitative researcher on the other hand would be concerned over not repeatability but the precision, credibility and transferability. Hoepfl (1997), Cf. (Golafshani, 2003) said *"Unlike quantitative researchers who seek causal determination, prediction, and generalization of findings, qualitative researchers seek instead illumination, understanding, and extrapolation to similar situations"*.

Reliability in Qualitative Research: The test of reliability in this case would be one where in the research is tested for its quality and its ability to explain an otherwise obfuscating situation. Stenbacka (2001) stated: - *"This relates to the concept of a good quality research when reliability is a concept to evaluate quality in quantitative study with a "purpose of explaining" while quality concept in qualitative study has the purpose of "generating understanding"*. Stenbacka (2001) also questioned the need of reliability in Qualitative Research, stating the fact that qualitative research did not need reliability and that that concept was irrelevant if not misleading as well. Lincoln & Guba (1985) used the term "dependability" as a surrogate to "reliability" when it came to quality research. Also "dependability" could be further bolstered by an inquiry audit.

Validity in Qualitative Research: The concept of Validity is not well defined by scholars in Qualitative research paradigm, rather “rather a contingent construct, inescapably grounded in the processes and intentions of particular research methodologies and projects” is how qualitative research scholars address the issue of finding the surrogate of “validity” in this paradigm. Also they have debated the need for a refined definition. (Golafshani, 2003) takes the support of many eminent scholars who have advocated triangulation approach in order to test their theory/research finding, he also called out for an approach to standardization via this route. Triangulation is as defined as: *“Triangulation may include multiple methods of data collection and data analysis, but does not suggest a fix method for all the researches. The methods chosen in triangulation to test the validity and reliability of a study depend on the criterion of the research”.*

Scale Development Practices

One of the important and critical nuances of Research is scale development is to make the research community cognizant about the problems encountered in data collated from questionnaires, since most research which is not to esoteric, but is practice oriented (which is majorly research carried out in the field of management). The question of reliability (reliability of results) and validity (whether it is actually measuring what it is supposed to measure) hit the scene when it comes to data collection based on questionnaires and has at times created problems for interpreting the results of the research.

Schwab (1980) outlined three steps in development of measures.

Item Development – Development of Individual Items, which can be inductively thought or deductively thought of; Scale Development – Items get combined into scales; Item Evaluation – Psychometric Evaluation of the new measure

Some, important aspects the following are important for scale development.

Whether the sample chosen is actually representative of the population; Concern over use of negatively worded (reverse scored) items; No of items to in a measure; How much variance is there in between the respondents as generated by the scale for sufficient scrutiny; Size of the sample taken

Model Development

The term model may denote anything used to explain a particular phenomenon. However, in the Social Sciences, it has a more profound role. Models are said to provide: Meaningful contexts, report specific findings, look into significant details and must be “true” and also important. Through the aforesaid sections, it will be also true in the case of theory. Theory too guides the collection of data, which gives some direction in subsequent analysis bereft of some conceptual understanding; systematic reporting of data based on heuristics is not meaningful. Important to note is that there is a coevolution of Data and Theory. Any researcher studying either on a standalone basis would not deliver a comprehensive answer of the phenomenological question being studied or inquired into.

The distinction between Model and Theory happens when in the process of our study, we come across the methodological part. Surely, like most research which seeks to answer a question, it generates certain leads which we like to test, for this we formulate hypothesis which is one of the aids to theory development. Hypothesis development takes place in the twilight regions of our minds. The departure and the point of inflection between theory and model happens right here: Models are more

conscious, definite and more explicit. The importance and the purpose of Models are to communicate to the larger community, of scientists what exactly the researcher has in mind. Since science is not only cumulative, it is cumulative because it is cooperative as well: this is just how we examined in the paradigm development as well, where for a paradigm to emerge there is a set of followers who strut the development of the field. Models may be either physical in nature or semantical (using symbols), formal equations or interpretive (through qualitative work).

Conclusion

The purpose of this primer has been, primarily to introduce first time researchers to the world of management research by a person who is very much learning, but has been formally through an advanced research course, a Doctorate. In this process also cautioning them to tread away from mere fact finding and conjuring reports which do not in any sense contribute to the advancement of the field or serve to answer any managerial problem, for which more depth and understanding is required. A sincere attempt has also been to distinguish terms that have demarcations but often tend to get misused unintentionally since many of them have overlapping themes.

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